CORRECTED VERSION

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 6 May 2005 (06.05.2005)

PCT

(10) International Publication Number WO 2005/039642 A1

- (51) International Patent Classification⁷: A61K 48/00, 47/44, 9/06, 38/21, A61P 17/00, A61K 31/7088
- (21) International Application Number:

PCT/CA2004/001870

- (22) International Filing Date: 25 October 2004 (25.10.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/514,197

24 October 2003 (24.10.2003) US

- (71) Applicant (for all designated States except US): UNI-VERSITY OF SASKATCHEWAN [CA/CA]; Box 5000 RPO University, 110 Gymnasium Place, Saskatoon, Saskatchewan S7N 4J8 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): FOLDVARI, Marianna [CA/CA]; 210 Brookhurst Crescent, Saskatoon, Saskatchewan S7V 1C5 (CA). VERRALL, Ronald, E. [CA/CA]; 129 Mt. Allison Crescent, Saskatoon, Saskatchewan S7H 4A4 (CA). BADEA, Ildiko [CA/CA]; 743 Wakaw Terrace, Saskatoon, Saskatchewan S7J 4C1 (CA).
- (74) Agent: MCKAY-CAREY, Mary Jane; McKay-Carey & Company, 2590 Commerce Place, 10155-102nd Street, Edmonton, Alberta T5J 4G8 (CA).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- with amended claims

Date of publication of the amended claims: 16

16 June 2005

(48) Date of publication of this corrected version:

29 September 2005

(15) Information about Correction:

see PCT Gazette No. 39/2005 of 29 September 2005, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DNA DELIVERY WITH GEMINI CATIONIC SURFACTANTS

(57) Abstract: The invention provides a delivery system for a biologically active agent comprising a gemini surfactant in admixture with the biologically active agent in a topical formulation for treatment of skin disorders or metabolic diseases. The invention also provides pharmaceutical compositions in topical formulations comprising the delivery system as set out above, in admixture with pharmaceutically acceptable carriers, diluents, excipients, or supplements suitable for application to the skin or mucosal membrane. Methods of preparation and use are also described.

2005/039642 A